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LMMB QA & Data Management Peer Review
April 29, 1999

US EPA Peer Review Policy

Approved January 19, 1993 by

William K. Riley, Administrator

"Major scientifically and technically based work products related to Agency decisions should be peer-reviewed. Agency managers...are accountable for the decision whether to employ peer review in particular instances and, if so, its character, scope, and timing".

"External peer reviewers should be chosen carefully to ensure an independent and objective evaluation. The affiliations of peer reviewers should be identified on the public record so to avoid undercutting the credibility of the peer-review process by conflicts of interest".

Technical Charge for Peer Reviewers

A.   Project Management:

◆ Was sufficient emphasis and resources applied to the Quality Assurance and Data Management phase of the project? Were there any areas of the project that contained too much emphasis/resources?

◆ Was there sufficient management involvement in the Quality Assurance and Data Management areas of the project?

◆ Was the approach of investigator defined data quality and methods appropriate for the primary goals of the project?

Technical Charge for Peer Reviewers

A. **Project Management (***continued***):**

◆ Is the documentation and availability of data, data quality, process and procedures sufficient for a project of this magnitude?

◆ Does the approach for data verification, data management and data availability employed for this project have applications for future surveys of similar importance? What recommendations would you have for improving on the approaches?

◆ Recognizing the methods chosen are not a formal part of the peer review, are there any changes you would recommend for future surveys?

Technical Charge for Peer Reviewers

B. **Quality Assurance Process**

a. *Data Verification:*

◆ In this study, principle investigators (PIs) established measurement quality objectives (MQO's) for their data and these MQO's provided a basis for data flagging. Additionally the QC coordinator also applied comprehensive flags such as invalid (INV), low bias (LOB) or high bias (HIB). We have recommended to all our data users to avoid using data with the INV flag. Please comment on the appropriateness of this approach.

◆ Do you believe that the auditing criteria and the number of technical audits conducted were appropriate for a study of this size?

Technical Charge for Peer Reviewers

B.   Quality Assurance Process (*continued***)**

a.   *Data Verification:*

◆ In this study, blank and surrogate corrected data was reported at the request of our primary data users, while raw data is made available if requested. Do you think this was appropriate for this study? Are there other suggestions you would have for dealing with this concern?

◆ Data below various detection limits were reported with the various associated flags, are there any suggestions you would have other than the current approach for assuring this information is not misused for future assessments of the information?

Technical Charge for Peer Reviewers

B.   **Quality Assurance Process** (*continued*)

b.   *Data Standard:*

◆ Are the definitions and intended uses of the codes in the reference tables easily understood?

◆ How does the dynamic nature of the data standard and the lists of codes affect the strength of the QA process?

Technical Charge for Peer Reviewers

B.   Quality Assurance Process (*continued***)**

b.   *Statistical Assessment:*

◆ In this study, is there sufficient explanation of the statistical methodology in the preliminary statistical assessment reports?

◆ Did we represent each statistical attribute sufficiently in the reports?

◆ Are there any other analyses that you believe should be conducted on the data? Are there any current analyses that you feel are unnecessary?

◆ Do you think that the "Percent of Variability Due to Sampling and Analytical Measurement Uncertainty" is a meaningful and useful value?
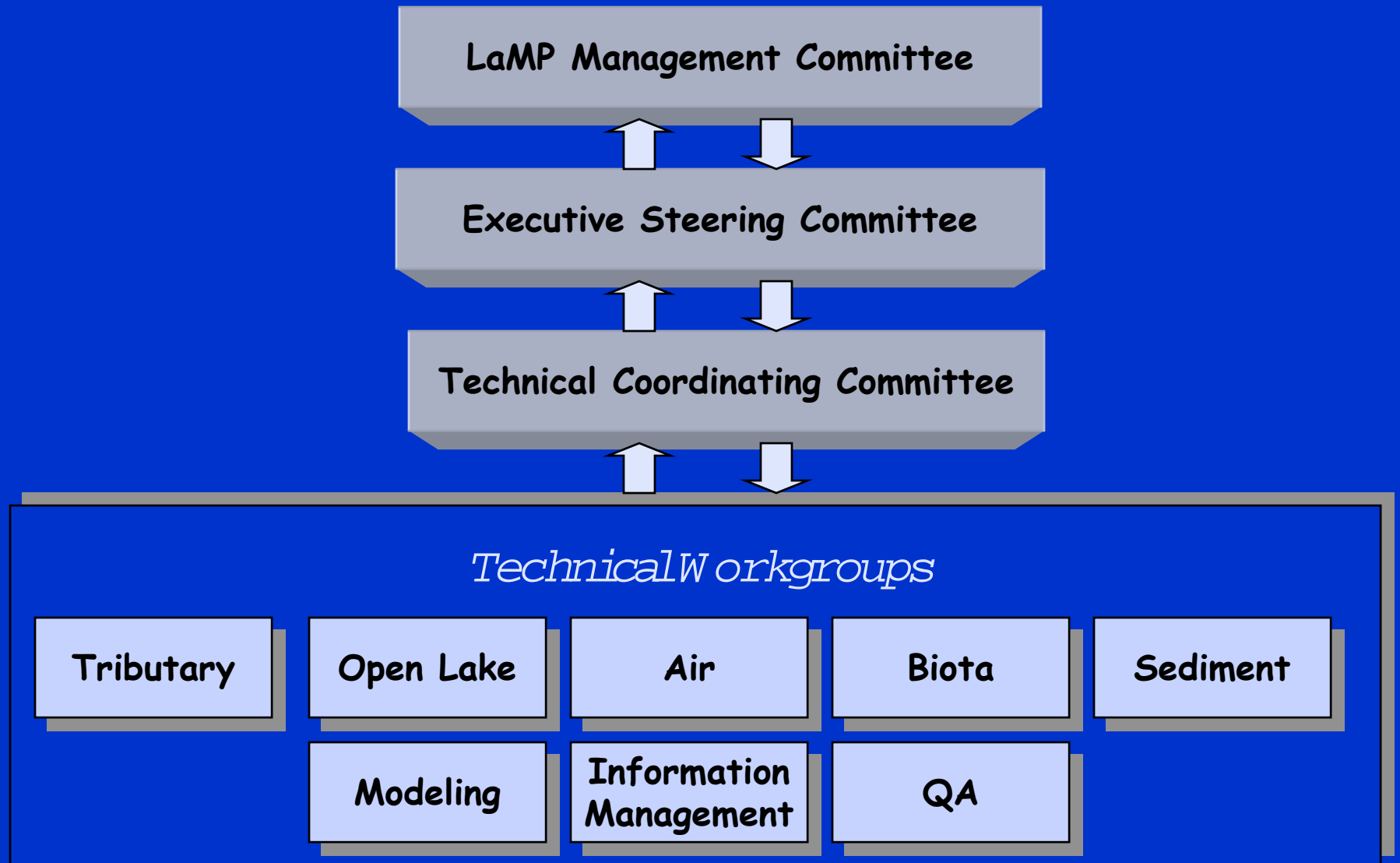
Technical Charge for Peer Reviewers

C. Data Management:

◆ Are there any features of the database that you feel should be added or removed?

◆ Do you agree that the database in its current and proposed state is feasible and practical for other programs of the same magnitude?

Lake Michigan Mass Balance Organizational Structure

LaMP Management Committee

Executive Steering Committee

Technical Coordinating Committee

Technical Workgroups

Tributary	Open Lake	Air	Biota	Sediment

Modeling	Information Management	QA

Technical Workgroups

WORKGROUP	NAME	AFFILIATION
Technical Coordinating Committee Coordinators	Paul Horvatin Glenn Warren	U.S. EPA, Great Lakes National Program Office
Air	Angela Bandemehr	U.S. EPA, Great Lakes National Program Office
Biota	Dr. Paul Bertram John Gannon	U.S. EPA, Great Lakes National Program Office USGS, National Biological Survey
Open Lakes	Dr. Glenn Warren	U.S. EPA, Great Lakes National Program Office
Tributaries	Bob Day Gary Kohlhepp	Michigan Department of Natural Resources
Sediments	Brian Eadie	National Oceanic & Atmospheric Administration
Modeling	Bill Richardson	U.S. EPA, Office of Research & Development
Information Management	Louis Blume	U.S. EPA, Great Lakes National Program Office
QA	Louis Blume	U.S. EPA, Great Lakes National Program Office